



# Manufacturers' Shipments, Inventories, and Orders

July 1970

U.S. DEPARTMENT OF COMMERCE / Bureau of the Census



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New orders for manufactured products in July increased by 1.7 percent or \$1.0 billion to \$56.6 billion from \$55.6 billion in June, after seasonal adjustment. The increase in new orders was attributable primarily to the aerospace and communications components of the defense products industries. Shipments increased by \$300 million to \$56.9 billion. The backlog of unfilled orders declined to \$83.8 billion from \$84.0 billion at the end of June. Manufacturers' inventories increased \$800 million to \$98.5 billion from \$97.7 billion at the end of June. The inventories to shipments ratio remained unchanged at 1.73.

For the three months ending with July, the average change in new orders represents an increase of 2.0 percent compared with a decrease of 0.3 percent for the three months ending with April and a decrease of 1.8 percent for the three months ending with January.

## NEW ORDERS

New orders for durable goods at \$30.7 billion increased \$1.0 billion from June. This 3.3 percent increase revises the preliminary estimate of a 6.1 percent increase published earlier. New orders in the transportation industry increased \$600 million to \$7.8 billion. Among the other major groups recording gains, the electrical machinery industry increased \$400 million and nonelectrical machinery rose \$300 million. New orders for primary metals declined \$100 million to \$4.7 billion and fabricated metals declined \$400 million to \$3.1 billion.

Among the supplementary series, new orders for defense products increased \$1.2 billion to \$3.0 billion. Orders for producers' capital goods increased \$100 million to \$6.5 billion while orders for household durables declined \$100 million to \$2.0 billion. (SEE CHART 1)

Chart 1 - Manufacturers' New Orders (Seasonally Adjusted)

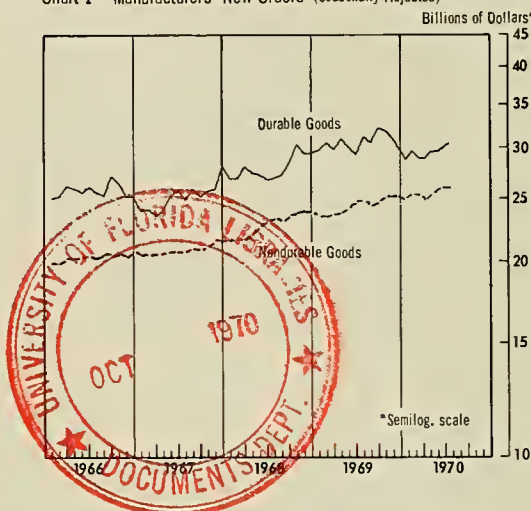
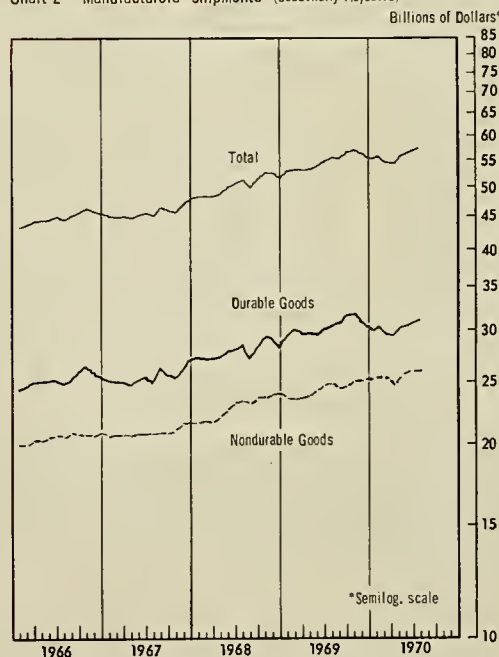


Chart 2 - Manufacturers' Shipments (Seasonally Adjusted)



## SHIPMENTS

Shipments of durable goods increased \$400 million to \$31.0 billion as shipments of non-durables decreased \$100 million to \$25.9 billion. Shipments of transportation equipment increased \$200 million to \$7.7 billion. Shipments of non-electrical machinery also increased \$200 million, to \$5.6 billion. Among the nondurable goods industries, the pattern was mixed with the largest dollar decline in the foods industry group. (SEE CHART 2)

## UNFILLED ORDERS

Unfilled orders of durable goods at \$80.8 billion were \$300 million below the backlog at the end of June. This slight decline reverses the direction of change from the 0.2 percent increase published in the earlier advance report on durable goods. The fabricated metals industry group declined \$200 million to \$10.5 billion. The pattern was mixed among the other durable goods industries, with small increases in electrical machinery and transportation equipment offset by declines in primary metals and nonelectrical machinery. (SEE CHART 3)

## INVENTORIES

Inventories in the durable goods industries increased \$800 million to \$65.2 billion at the end of July while those in the nondurable goods industries decreased slightly to \$33.3 billion. Most major industry groups in the durable sector registered increases in inventories with the largest dollar gain reported by the transportation industry. In the nondurable sector, the pattern was mixed. At the all manufacturing level, finished goods increased \$400 million while work-in-process and materials and supplies inventories each increased \$200 million. (SEE CHART 4)

The advance report on durable goods for August is scheduled for release on September 22 and the full report is scheduled for release on October 1.

For an explanation of terms used in this report see appendix following table 5.

Inquiries concerning these figures should be addressed to the U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233.

Chart 3 – Manufacturers' Unfilled Orders (Seasonally Adjusted)

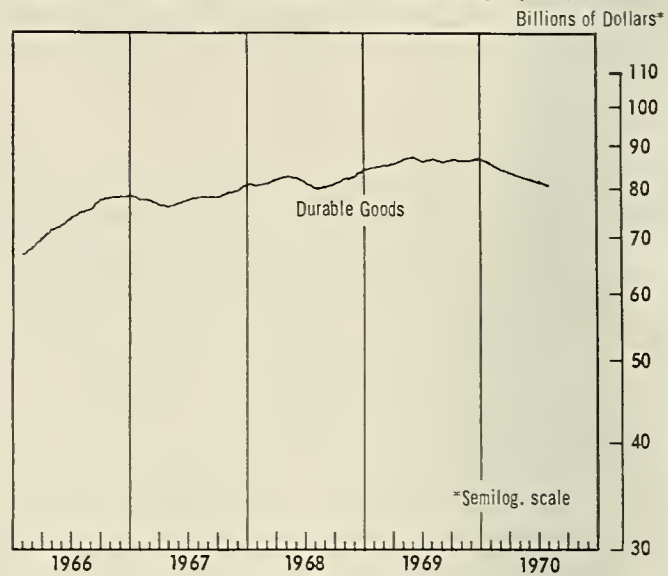


Chart 4 – Total Inventory (Seasonally Adjusted)

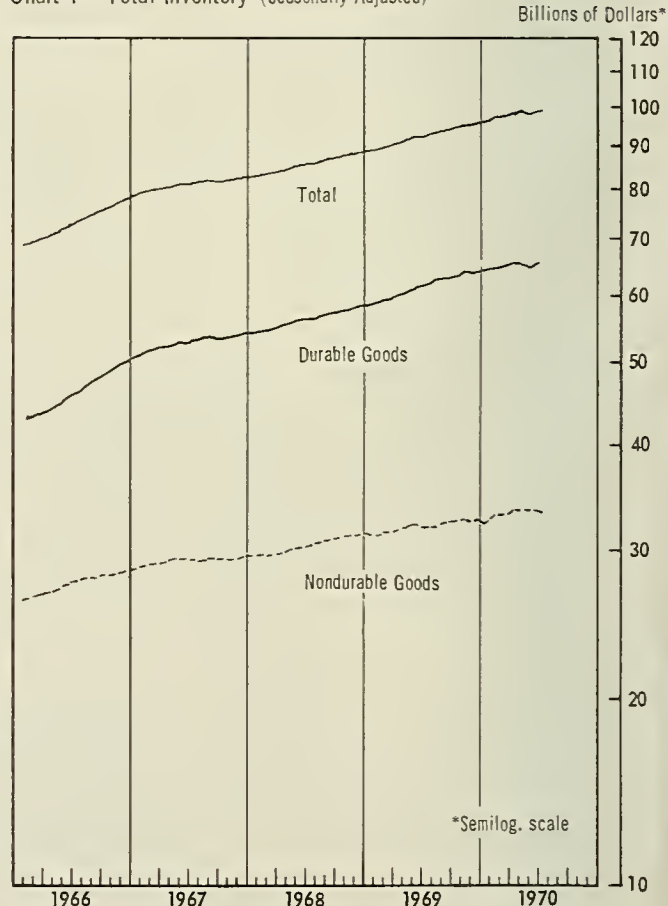




Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment <sup>1</sup>			Seasonally adjusted			Without seasonal adjustment		
	July 1970 <sup>P</sup>	June 1970 <sup>F</sup>	May 1970	July 1970 <sup>P</sup>	June 1970 <sup>F</sup>	July 1969	July 1970 <sup>P</sup>	June 1970 <sup>F</sup>	May 1970	July 1970 <sup>P</sup>	June 1970 <sup>F</sup>	July 1969
	Shipments						Total inventories					
All manufacturing industries:												
Total.....	56,866	56,528	55,545	52,088	59,255	50,501	98,505	97,739	97,923	98,051	98,073	92,682
Total, excluding transportation.....	49,172	49,060	48,036	45,873	51,094	44,277	83,119	82,576	82,564	83,025	83,054	77,509
Durable goods industries, total.....	31,016	30,580	30,368	27,825	32,760	27,225	65,193	64,375	64,617	64,870	64,779	61,113
Stone, clay, and glass products.....	1,438	1,481	1,478	1,459	1,643	1,407	2,631	2,557	2,575	2,636	2,607	2,468
Primary metals, total.....	4,874	4,930	4,822	4,449	5,205	4,360	8,621	8,608	8,649	8,544	8,491	7,729
Blast furnaces, steel mills.....	2,259	2,283	2,134	2,121	2,386	2,101	4,620	4,608	4,641	4,551	4,492	4,122
All other primary metals.....	2,615	2,647	2,688	2,328	2,819	2,259	4,001	4,000	4,008	3,993	3,999	3,607
Fabricated metal products, total.....	3,353	3,276	3,174	3,118	3,511	2,876	6,743	6,648	6,633	6,840	6,815	6,502
Metal cans, barrels, and drums.....	306	298	289	338	335	327	682	697	689	733	759	736
Machinery, except electrical, total.....	5,559	5,389	5,526	5,137	5,877	4,856	13,942	13,754	13,672	13,812	13,743	12,424
Engines and turbines.....	456	416	460	383	507	389	964	950	960	953	932	942
Farm machinery and equipment.....	450	470	434	399	515	407	1,026	1,017	996	998	1,009	918
Construction, mining, and material handling equipment.....	700	712	679	681	787	645	2,466	2,414	2,393	2,419	2,397	2,087
Metalworking machinery.....	362	344	346	313	375	274	1,146	1,141	1,139	1,139	1,139	1,067
General industrial machinery.....	569	559	552	550	602	457	1,173	1,164	1,162	1,170	1,170	1,029
Electrical machinery, total.....	3,939	3,950	3,865	3,553	4,086	3,536	9,670	9,492	9,498	9,714	9,773	9,092
Electrical transmission and distribution equipment and industrial apparatus.....	783	774	788	718	831	654	2,054	1,999	1,999	2,052	2,021	1,871
Household appliances, including radio and TV.....	735	820	720	674	828	795	2,080	1,980	2,025	2,138	2,136	2,099
Communication equipment.....	1,135	1,102	1,130	1,028	1,159	1,006	2,859	2,863	2,843	2,839	2,909	2,639
Transportation equipment, total.....	7,694	7,468	7,509	6,215	8,161	6,224	15,386	15,163	15,359	15,026	15,019	14,773
Motor vehicles and parts.....	4,191	4,116	3,940	3,018	4,624	3,093	4,070	3,940	4,007	3,716	3,743	3,931
Aircraft, missiles, and parts.....	2,804	2,649	2,862	2,564	2,761	2,529	9,235	9,223	9,404	9,259	9,301	8,979
Instruments and related products.....	1,128	1,188	1,137	1,050	1,247	1,023	2,686	2,666	2,677	2,719	2,723	2,436
All other durable goods industries.....	3,031	2,898	2,857	2,844	3,030	2,943	5,514	5,487	5,554	5,579	5,608	5,689
Nondurable goods industries, total.....	25,550	25,948	25,177	24,263	26,495	23,276	33,312	33,364	33,306	33,181	33,294	31,569
Food and kindred products, total.....	8,539	8,854	8,476	8,206	9,062	7,809	7,565	7,594	7,626	7,325	7,254	7,052
Meat products.....	1,795	1,726	1,748	1,750	1,734	1,789	838	868	860	788	834	702
Tobacco products.....	460	415	457	473	454	437	2,159	2,149	2,140	2,001	2,074	2,068
Textile mill products.....	1,797	1,755	1,742	1,503	1,834	1,507	3,362	3,398	3,450	3,415	3,496	3,566
Paper and allied products, total.....	2,493	2,333	2,338	2,310	2,422	2,157	2,755	2,757	2,701	2,786	2,791	2,514
Pulp, paper, etc.....	1,068	993	986	988	1,025	921	1,091	1,092	1,049	1,097	1,086	962
Chemicals and allied products, total.....	4,255	4,201	4,173	3,944	4,383	3,825	6,943	6,893	6,826	6,937	6,872	6,383
Industrial chemicals, except pigments..	1,441	1,377	1,404	1,344	1,466	1,306	2,295	2,273	2,245	2,270	2,243	2,154
Petroleum and coal products.....	2,129	2,160	2,151	2,149	2,215	2,046	2,389	2,437	2,403	2,401	2,413	2,088
Rubber and plastics products, n.e.c.....	1,624	1,535	1,486	1,472	1,623	1,266	1,917	1,914	1,926	1,891	1,916	1,826
All other nondurable goods industries.....	4,553	4,695	4,354	4,206	4,502	4,229	6,222	6,222	6,234	6,425	6,478	6,072
	New orders						Unfilled orders					
All manufacturing industries:												
Total.....	56,600	55,642	54,634	52,372	58,497	51,551	83,752	84,022	84,908	84,174	83,902	89,892
Total, excluding transportation.....	48,845	48,518	47,789	45,658	50,552	45,188	55,193	55,523	56,065	55,591	55,816	56,767
Durable goods industries, total.....	30,722	29,743	29,476	28,099	32,062	28,355	80,810	81,106	81,945	81,181	80,921	86,759
Primary metals, total.....	4,740	4,869	4,705	4,211	4,968	4,631	6,920	7,052	7,116	6,845	7,085	7,377
Blast furnaces, steel mills.....	2,243	2,237	2,133	1,991	2,251	2,252	3,459	3,475	3,522	3,400	3,531	3,745
Fabricated metal products.....	3,119	3,471	3,370	2,923	3,677	3,028	10,482	10,716	10,520	10,650	10,845	10,338
Machinery, except electrical, total.....	5,449	5,191	5,371	4,995	5,607	5,015	16,232	16,344	16,544	16,192	16,338	16,456
Engines and turbines.....	553	343	404	445	442	449	4,850	4,752	4,825	4,785	4,722	4,336
Construction, mining, and material handling equipment.....	682	755	707	665	805	648	2,257	2,275	2,233	2,291	2,307	2,071
Metalworking machinery.....	307	266	289	273	297	293	1,343	1,399	1,477	1,346	1,386	1,943
General industrial machinery.....	527	552	545	512	574	477	1,558	1,600	1,607	1,574	1,613	1,583
Electrical machinery, total.....	4,078	3,699	3,832	3,857	4,038	3,854	13,445	13,305	13,555	13,567	13,269	13,413
Electrical transmission and distribution equipment and industrial apparatus.....	759	748	707	677	844	677	3,412	3,436	3,462	3,441	3,483	3,429
Household appliances, including radio and TV.....	674	831	714	646	862	859	548	609	597	585	613	722
Communication equipment.....	1,414	867	1,131	1,377	1,073	1,204	5,639	5,359	5,594	5,633	5,284	5,294
Transportation equipment, total.....	7,755	7,124	6,845	6,714	7,945	6,363	28,559	28,499	28,843	28,583	28,086	33,125
Aircraft, missiles, and parts.....	2,917	2,204	2,620	2,925	2,486	2,561	21,880	21,767	22,212	21,845	21,485	25,724
All other durable goods industries.....	5,581	5,389	5,353	5,399	5,827	5,464	5,172	5,190	5,367	5,344	5,298	6,050
Nondurable goods industries, total.....	25,878	25,899	25,158	24,273	26,435	23,196	2,942	2,916	2,963	2,993	2,981	3,133
Industries with unfilled orders.....	7,207	6,934	6,831	6,507	7,078	6,179	2,942	2,916	2,963	2,993	2,981	3,133
Industries without unfilled orders.....	18,671	18,965	18,327	17,766	19,357	17,017	-	-	-	-	-	-

- Represents zero. <sup>P</sup> Preliminary. <sup>F</sup> Revised.<sup>1</sup> Adjusted for trading-day and calendar-month variations.

Table 2.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, FOR MARKET CATEGORIES AND SUPPLEMENTARY SERIES  
(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment <sup>1</sup>			Seasonally adjusted			Without seasonal adjustment		
	July 1970 <sup>p</sup>	June 1970 <sup>r</sup>	May 1970	July 1970 <sup>p</sup>	June 1970 <sup>r</sup>	July 1969	July 1970 <sup>p</sup>	June 1970 <sup>r</sup>	May 1970	July 1970 <sup>p</sup>	June 1970 <sup>r</sup>	July 1969
	Shipments						Total inventories					
All manufacturing industries, total..	56,866	56,528	55,545	52,088	59,255	50,501	98,505	97,739	97,923	98,051	98,073	92,682
Durable goods industries, total.....	31,016	30,580	30,368	27,825	32,760	27,225	65,193	64,375	64,617	64,870	64,779	61,113
Nondurable goods industries, total.....	25,850	25,948	25,177	24,263	26,495	23,276	33,312	33,364	33,306	33,181	33,294	31,569
Industry groups arranged by market categories:												
Home goods and apparel.....	4,753	4,936	4,593	4,274	4,732	4,500	9,841	9,763	9,867	10,144	10,303	10,035
Consumer staples.....	10,909	11,214	10,802	10,427	11,464	10,051	12,599	12,619	12,612	12,286	12,273	11,675
Equipment and defense products, except automotive.....	9,370	8,965	9,423	8,615	9,673	8,234	26,590	26,281	26,261	26,482	26,445	24,254
Automotive equipment.....	4,840	4,775	4,542	3,623	5,346	3,670	5,218	5,059	5,142	4,816	4,848	5,027
Construction materials, supplies, and intermediate products.....	4,553	4,520	4,441	4,533	5,011	4,381	8,165	8,019	8,016	8,202	8,152	7,866
Other materials and supplies and intermediate products.....	22,441	22,118	21,744	20,616	23,029	19,665	36,092	35,998	36,025	36,121	36,052	33,825
Supplementary series: <sup>2</sup>												
Household durable goods industries.....	2,036	2,155	2,058	1,784	2,142	1,988	5,088	4,962	5,039	5,193	5,209	5,068
Producers' capital goods industries.....	6,673	6,454	6,653	6,149	6,995	5,709	17,400	17,101	16,966	17,293	17,135	15,526
Defense products industries (old series).....	4,223	4,019	4,254	3,865	4,204	3,828	12,831	12,788	12,961	12,846	12,943	12,471
Defense products (new series)*.....	2,074	2,089	1,999	1,892	2,192	1,899	7,154	7,099	7,235	7,166	7,170	7,727
	New orders						Unfilled orders					
All manufacturing industries, total..	56,600	55,642	54,634	52,372	58,497	51,551	83,752	84,022	84,908	84,174	83,902	89,892
Durable goods industries, total.....	30,722	29,743	29,476	28,099	32,062	28,355	80,810	81,106	81,945	81,181	80,921	86,759
Nondurable goods industries, total.....	25,878	25,899	25,158	24,273	26,435	23,196	2,942	2,916	2,963	2,993	2,981	3,133
Industry groups arranged by market categories:												
Home goods and apparel.....	4,720	4,912	4,512	4,321	4,743	4,660	1,859	1,897	1,919	1,955	1,913	2,338
Consumer staples.....	10,906	11,213	10,799	10,422	11,460	10,041						
Equipment and defense products, except automotive.....	9,662	8,328	8,838	9,258	9,398	8,866	45,420	45,152	45,834	45,573	44,901	48,343
Automotive equipment.....	4,814	4,732	4,340	3,654	5,262	3,676						
Construction materials, supplies, and intermediate products.....	4,342	4,606	4,602	4,325	5,073	4,464	10,360	10,571	10,484	10,588	10,795	10,544
Other materials and supplies and intermediate products.....	22,136	21,851	21,543	20,392	22,561	19,844	26,113	26,402	26,671	26,058	26,293	28,667
Supplementary series: <sup>2</sup>												
Household durable goods industries.....	2,011	2,142	1,995	1,845	2,168	2,162	1,528	1,555	1,566	1,612	1,552	1,950
Producers' capital goods industries.....	6,465	6,354	6,211	6,057	6,861	6,000	23,817	24,028	24,129	23,944	24,044	24,339
Defense products industries (old series).....	4,604	3,318	4,003	4,553	3,843	4,042	27,959	27,577	28,279	27,922	27,235	31,587
Defense products (new series)*.....	2,970	1,738	1,853	3,010	2,034	2,447	19,870	18,974	19,326	19,855	18,738	21,935

\*During 1968 manufacturers of ordnance, communications, aircraft and aircraft parts, and shipbuilding industries began to provide aggregate figures on shipments, orders, and total inventories of work performed for the Department of Defense. The results of these reports are included in these new defense series. Since there are no historic data available to develop separate seasonal factors for these reporters, the data have been seasonally adjusted using the factors of these industries. <sup>p</sup>Preliminary. <sup>r</sup>Revised. <sup>1</sup>Shipments and new orders adjusted for trading-day and calendar-month variations; unfilled orders and inventories as of end of month. <sup>2</sup>The supplementary series are regroupings of the separate industry categories as follows:

Household durable goods industries - Household furniture; kitchen articles and pottery; cutlery, handtools, and hardware; household appliances; ophthalmic goods, watches, and clocks; and miscellaneous personal goods.

Producers' capital goods (formerly machinery and equipment) industries - Machinery, except electrical (excluding farm machinery and equipment and machine shops), electrical machinery (excluding household appliances, communication equipment and electronic components), shipbuilding and repairing, and railroad and street car equipment.

Defense products industries (old series) - Based on reports for companies classified in the communication equipment, complete aircraft, aircraft parts, and ordnance industries. (Thus, this series includes significant amounts of nondefense work in these industries and omits defense work performed in the shipbuilding industry.)

Defense products (new series) - Based on separate reports on defense work filed by large defense contractors in the following industries: ordnance, communications, complete aircraft, aircraft parts, and ship building. Thus, it differs from the old series in that it includes defense activity in ship building and excludes nondefense work in ordnance, communications, complete aircraft, and aircraft parts. The data are comparable to those published annually in the MA-175, Shipments of Defense-Oriented Industries, for the specified industries.

Table 3.--MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS MONTH-TO-MONTH AND LONG TERM PERCENT CHANGES

(Based on seasonally adjusted data)

Item and industry group	Month-to-month			Average monthly rates of change				Average, 1964-69	
	June <sup>r</sup> - July 1970	May <sup>r</sup> - June <sup>r</sup> 1970	April- May	3 months			12 months July 1969- July 1970	Average rise	Average decline
				April- July 1970	Jan.- April 1970	Oct. 1969- Jan. 1970			
Shipments:									
All manufacturing industries.....	+0.6	+1.8	+2.4	+1.6	-0.5	-1.1	+0.2	+1.4	-1.1
Durable goods industries, total.....	+1.4	+0.7	+3.0	+1.7	-0.6	-2.0	+0.1	+1.9	-2.1
Nondurable goods industries, total.....	-0.4	+3.1	+1.8	+1.5	-0.4	-0.1	+0.4	+1.0	-0.5
Total inventories:									
All manufacturing industries.....	+0.8	-0.2	+1.5	+0.7	+0.6	+0.4	+0.6	+0.7	-0.1
New orders:									
All manufacturing industries.....	+1.7	+1.8	+2.4	+2.0	-0.3	-1.8	+0.1	+1.8	-1.5
Durable goods industries, total.....	+3.3	+0.9	+3.0	+2.4	-0.3	-3.1	-0.1	+3.1	-2.4
Nondurable goods industries, total.....	-0.1	+2.9	+1.6	+1.5	-0.3	-0.2	+0.4	+1.1	-0.6
Unfilled orders:									
Durable goods industries, total.....	-0.4	-1.0	-1.1	-0.8	-1.1	-0.3	-0.6	+1.1	-0.6

Table 4.--RATIO OF MANUFACTURERS' INVENTORIES TO SHIPMENTS AND UNFILLED ORDERS TO SHIPMENTS, BY INDUSTRY GROUP

(Based on seasonally adjusted data)

Industry group	Inventories - shipments ratio				Unfilled orders - shipments ratio <sup>1</sup> (months' backlog)			
	July 1970 <sup>p</sup>	June 1970 <sup>r</sup>	May 1970	July 1969	July 1970 <sup>p</sup>	June 1970 <sup>r</sup>	May 1970	July 1969
All manufacturing industries, total.....	1.73	1.73	1.76	1.68	2.40	2.43	2.48	2.64
Durable goods industries, total.....	2.10	2.11	2.13	2.01	2.91	2.95	2.98	3.20
Stone, clay, and glass products.....	1.83	1.73	1.74	1.77	(NA)	(NA)	(NA)	(NA)
Primary metals.....	1.77	1.75	1.79	1.63	1.42	1.43	1.48	1.56
Fabricated metals.....	2.01	2.03	2.09	2.07	3.44	3.60	3.65	3.64
Machinery, except electrical.....	2.51	2.55	2.47	2.38	2.92	3.03	2.99	3.13
Electrical machinery.....	2.45	2.40	2.46	2.30	3.41	3.37	3.51	3.38
Transportation equipment.....	2.00	2.03	2.05	1.91	5.74	5.77	5.64	6.82
Instruments and related products.....	2.38	2.24	2.35	2.19	(NA)	(NA)	(NA)	(NA)
Nondurable goods industries, total.....	1.29	1.29	1.32	1.28	0.41	0.42	0.43	0.45
Food and kindred products.....	0.89	0.86	0.90	0.90	(X)	(X)	(X)	(X)
Tobacco products.....	4.69	5.18	4.68	5.25	(X)	(X)	(X)	(X)
Textile mill products.....	1.87	1.94	1.98	1.96	(NA)	(NA)	(NA)	(NA)
Paper and allied products.....	1.11	1.18	1.16	1.07	(NA)	(NA)	(NA)	(NA)
Chemicals and allied products.....	1.63	1.64	1.64	1.55	(X)	(X)	(X)	(X)
Petroleum and coal products.....	1.12	1.13	1.12	1.02	(X)	(X)	(X)	(X)
Rubber and plastics products, n.e.c.....	1.18	1.25	1.30	1.33	(X)	(X)	(X)	(X)

(NA) Not available. <sup>p</sup>Preliminary. <sup>r</sup>Revised. (X) Not applicable.<sup>1</sup>Excludes the following industries with no unfilled orders: Wooden containers; glass containers; metal cans, barrels and drums; motor vehicle assembly operations; foods and related products; tobacco; apparel and related products; chemicals; petroleum and coal products; and rubber and plastics products, n.e.c.



Table 5.--VALUE OF MANUFACTURERS' INVENTORIES, BY STAGE OF FABRICATION, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment			Seasonally adjusted			Without seasonal adjustment		
	July 1970 <sup>P</sup>	June 1970	May 1970	July 1970 <sup>P</sup>	June 1970 <sup>T</sup>	July 1969	July 1970 <sup>P</sup>	June 1970	May 1970	July 1970 <sup>P</sup>	June 1970 <sup>T</sup>	July 1969
	Total						Materials and supplies					
All manufacturing industries, total..	98,505	97,739	97,923	98,051	98,073	92,682	28,557	29,395	29,417	29,312	29,136	28,558
Durable goods industries, total.....	65,193	64,375	64,617	64,870	64,779	61,113	17,664	17,479	17,480	17,524	17,364	16,993
Stone, clay, and glass products.....	2,631	2,557	2,575	2,636	2,607	2,468	841	808	816	840	815	791
Primary metals.....	8,621	8,608	8,649	8,544	8,491	7,729	3,036	3,063	3,055	3,024	2,968	2,749
Machinery (electrical and nonelectrical).	23,612	23,246	23,170	23,526	23,516	21,516	5,637	5,620	5,570	5,718	5,645	5,216
Transportation equipment.....	15,386	15,163	15,359	15,026	15,019	14,773	3,154	3,039	3,078	2,864	2,936	3,129
All other durable goods industries.....	14,943	14,801	14,864	15,138	15,146	14,627	4,996	4,949	4,961	5,078	5,000	5,108
Nondurable goods industries, total.....	33,312	33,364	33,306	33,181	33,294	31,569	11,893	11,916	11,937	11,788	11,772	11,565
Chemicals and allied products.....	6,943	6,893	6,826	6,937	6,872	6,383	2,287	2,277	2,266	2,304	2,282	2,218
Petroleum and coal products.....	2,389	2,437	2,403	2,401	2,413	2,088	541	546	542	551	559	477
Rubber and plastics products, n.e.c.....	1,917	1,914	1,926	1,891	1,916	1,826	596	607	607	612	610	593
All other nondurable goods industries....	22,063	22,120	22,151	21,952	22,093	21,272	8,469	8,486	8,522	8,321	8,321	8,277
	Work in process						Finished goods					
All manufacturing industries, total..	35,443	35,245	35,443	35,399	35,332	33,623	33,505	33,099	33,063	33,340	33,605	30,501
Durable goods industries, total.....	30,498	30,243	30,418	30,391	30,281	28,618	17,031	16,653	16,719	16,955	17,134	15,502
Stone, clay, and glass products.....	389	374	382	393	387	395	1,401	1,375	1,377	1,403	1,405	1,282
Primary metals.....	2,905	2,921	2,943	2,882	2,881	2,665	2,680	2,624	2,651	2,638	2,642	2,315
Machinery (electrical and nonelectrical).	11,088	11,005	10,979	10,984	11,008	10,262	6,887	6,621	6,621	6,824	6,863	6,038
Transportation equipment.....	10,712	10,620	10,773	10,664	10,572	10,188	1,520	1,504	1,508	1,498	1,511	1,456
All other durable goods industries.....	5,404	5,323	5,341	5,468	5,433	5,108	4,543	4,529	4,562	4,592	4,713	4,411
Nondurable goods industries, total.....	4,945	5,002	5,025	5,008	5,051	5,005	16,474	16,446	16,344	16,385	16,471	14,999
Chemicals and allied products.....	892	893	901	892	890	944	3,764	3,723	3,659	3,741	3,700	3,221
Petroleum and coal products.....	514	538	530	526	546	493	1,334	1,353	1,331	1,324	1,308	1,118
Rubber and plastics products, n.e.c.....	322	314	306	318	311	315	999	993	1,013	961	995	918
All other nondurable goods industries....	3,217	3,257	3,288	3,272	3,304	3,253	10,377	10,377	10,341	10,359	10,468	9,742

<sup>P</sup> Preliminary.<sup>T</sup> Revised.

## Appendix

The following is a description of the survey and definitions used. These are provided to clarify the meaning of the items involved and do not represent any revisions from those definitions previously employed.

### DESCRIPTION OF THE SURVEY

The Manufacturers' Shipments, Inventories, and Orders survey provides monthly figures that are comparable to the annual totals published each year in the annual survey of manufactures (ASM). The ASM is based on a sample of approximately 60,000 manufacturing establishments drawn from the 5-year census universe of about 310,000 establishments. In the ASM, each manufacturing establishment provides data on employment, payrolls, shipments, cost of materials, capital expenditures, and inventories as well as other selected items. The establishments do not provide information on unfilled orders or new orders. Since the ASM is establishment based, it provides data for each of the 425 manufacturing industries in the Standard Industrial Classification System (SIC) and area data for industry groups.

The monthly survey M3-1 does not provide information at the complete SIC industry detail because of the smaller size of the reporting panel and the fact that most companies cannot provide shipments, inventories, and orders data monthly for individual establishments.

The monthly reporting panel consists of approximately 5,000 reporting units and includes virtually all companies with 1,000 or more employees and a sample of the smaller ones. The reporting unit typically comprises the entire operations of a company although many of the larger diversified companies file separate divisional type reports for their operations in different industries.

Most of the reporting units include mixed industry activity even within the broad industry categories of the monthly survey. The survey methodology assumes that the month-to-month changes of the reporting units classified in each industry category represent effectively the month-to-month movements of the establishments in the SIC industries which make up the category. Thus, the monthly reports are used to update the ASM estimates by using a link relative of matched companies in each industry.

### EXPLANATION OF TERMS

**Value of Shipments**--Shipments in the monthly survey are equivalent to value of shipments as reported in the ASM which are received or receivable net selling values, f.o.b. plant, after discounts and allowances and excluding freight charges and excise taxes. Included in shipments are the value of all products sold, transferred to other plants of the same company, or shipped on consignment.

Shipments also include receipts of establishments in the industry for contract work performed for others, resales, receipts for miscellaneous activities such as the sale of scrap and refuse; value of installation and repair work performed by employees of the plant; and value of research and development performed at the plant. In the aircraft industry and shipbuilding, the value of work done in a given year varies considerably from the value of shipments because of the long lead time between the input of the materials and labor and the shipments of the completed aircraft or ship. In the annual survey, therefore, the value of work done during the year is requested rather than the value of shipments.

The value of shipments figures developed from the ASM contain duplication at the all manufacturing and industry group levels since the products of some industries are used as materials by other industries within the industry group. With the exception of motor vehicles, it is not significant at the 4-digit SIC group level. Since the M3-1 industry categories typically are groupings of industries, this duplication is significant for the all manufacturing, durable goods and nondurable goods categories and the various market groups. The significance of the duplication within the specific M3-1 industry groups varies depending on the 4-digit industry composition of these groups. It is most pronounced in a few highly integrated industry areas such as primary metals and motor vehicles and parts.

Since most monthly reports are for the entire company or major divisions rather than establishments, the companies are requested to report net sales, i.e., total company billings after discounts and allowances. Companies which file divisional reports are requested to treat transfers from one division of the company to another as if they were net sales to outside customers. Although this



definition of shipments in the monthly reports differs from that used in the annual establishment reports, it is assumed that the month-to-month changes in company sales in the industry are representative of the month-to-month shipments of the establishments in the industry.

**Inventories--**End-of-month inventories in the monthly survey are identical in definition to the end-of-year inventories in the ASM. In the ASM, respondents are asked to report inventories of individual establishments at approximate current cost if feasible; otherwise, "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the aggregate inventories for establishments in an industry is not precise. The figures on the change in inventories from one period to the next are of greater significance than the actual aggregates.

Inventories are reported by stage of fabrication: (a) finished goods; (b) work in process; and (c) materials, supplies, fuel, and other inventories. In using inventories by stage of fabrication at the all manufacturing and 2-digit industry levels as well as for the durable and non-durable goods sectors, it should be noted that a finished product of one industry may be a raw material for another industry at the next stage of fabrication. Insofar as the durable and nondurable goods sectors and also the 2-digit industry groups contain industries with successive stages of processing, the same type of commodity may be included under different inventory categories in the aggregate statistics.

### **New Orders Received and Unfilled Orders--**

Orders as reported in the monthly survey are net of cancellations during the month. They include orders received during the period and also filled during the period as well as those orders received for future delivery. They also include the net sales value of contract change documents which increase or decrease the sales value of the unfilled orders to which they relate. Orders include only those supported by binding legal documents such as signed contracts, or letter contracts. In case of letter contracts the full amount of the sales value is included if the parties are in substantial agreement on the amount; otherwise, only the funds specifically authorized to be expended are included. The respondent is instructed to deduct the sales value of partial or complete cancellation of existing orders.

Unfilled orders include orders as defined above that have not yet passed through the sales account. Generally, unfilled orders at the end of the reporting period are equal to unfilled orders at the beginning of the period plus net new orders received less net sales.

While both new orders and unfilled orders are used in reviewing individual company reports for consistency, only unfilled orders are estimated directly in the tabulated totals. New orders are derived from the shipments plus net change in unfilled orders for each industry category. This procedure is followed for seasonally adjusted data as well as for the unadjusted data. Shipments and unfilled orders are seasonally adjusted independently. Seasonally adjusted new orders are derived from seasonally adjusted shipments and seasonally adjusted unfilled orders.